

AMENDMENTS TO THE SPECIFICATION

Page 1, immediately after the title, please insert:

This application is a U.S. national stage of International Application No. PCT/JP2003/012446 filed September 29, 2003.

Page 13, line 10 to page 14, line 10, please rewrite as follows:

When the solid/liquid separation is performed, the temperature-controlled fraction may be allowed to stand or may be stirred. In case of stirring, preferably, the number of revolution should be that does not collapse crystals. An example of each fractionation step of the present invention is shown in Fig. 1. In step (1), the raw material fat is fractionated into the crystalline fraction (F) and the liquid fraction (L). In step (2), the liquid fraction (L) is further fractionated into the crystalline fraction (LF) and the liquid fraction (LL) to finally obtain the high-melting point, medium-melting point and low-melting point fractions. In this method, the liquid fraction (FL) remaining in the F-fraction (see step (3)), and the crystalline fractions (LFF) obtained by removing the liquid fraction (LFL) remaining the LF fraction (see step (4)) are mixed to obtain the medium-melting point fraction. The weight ratio of the crystalline fraction to the liquid fraction is controlled to be 8:2 to 2:8, preferably 7:3 to 3:7, during the fractionation steps of the present invention. The liquid fraction can be hardly separated from the crystalline fraction when the weight ratio of the crystalline fraction exceeds 80%, while it is not easy to perform fractionation when the weight ratio of the liquid fraction exceeds 80% since the crystalline fraction is hardly crystallized in the liquid fraction due to mutual dissolution.

Page 14, line 11 to page 15, line 14, please rewrite as follows:

The temperature of crystalline fraction (F) obtained in step (1), or the ~~liquid~~ crystalline fraction (~~L~~) (LF) obtained in step (2) is raised so as to melt a part of each fraction to perform solid/liquid separation. When only a part of each fraction is melted, in case of F-fraction, the crystalline fraction (FF) in the F-fraction, or the liquid fraction (FL) in the F-fraction is separated as a liquid from a solid, respectively. Fractionation of

the partially melted product permits the residual ratio of the other fraction in each fraction can be decreased. Likewise, in case of the fractionation of the LF fraction the residual ratio of the other fraction in each fraction can be also decreased by the same treatment as described above. Preferably, solid/liquid separation is repeated until the proportion of the liquid component remaining in the crystalline fraction obtained by each fractionation step is 15% by weight or less, preferably 10% by weight or less. Melting properties of a chocolate in the mouth can be improved, or softening of a chocolate with time can be prevented when the medium-melting point fraction is used for hard butter products such as chocolates, by lowering the residual ratio of the other fraction in each fraction, particularly, the residual ratios of the high-melting point fraction and low-melting point fraction in the medium-melting point fraction. When the proportion of the liquid fraction remaining in the crystalline fraction obtained in each fractionation step exceeds 15% by weight, melting properties of a chocolate in the mouth and the effect for preventing a chocolate from being softened with time may be deteriorated.

Page 29, line 23 to page 30, line 13, please rewrite as follows:

After crushing the above crystalline fraction solidified at 23°C, the entire crystalline fraction was melted in a melting vessel with heating. The melting vessel used was equipped with a heating coil in a stainless steel vessel with a size of 380 mm (width) × 380 mm (length) × 400 mm (height), and warm water at a constant temperature was circulated in the coil. After raising the temperature of the crystalline fraction to 43.0°C, the fraction was kept at the temperature for about 120 minutes with stirring at 30 rpm. The fraction was filtered by pressing with a filter press to perform solid/liquid separation, thereby removing a crystalline part in which high-melting point glycerides were concentrated and obtaining a liquid part. The composition (% by weight) of the high-melting point glycerides and representative G2U and GU2 in the liquid part are shown in Table [[2]] 5.

Page 30, lines 14-22, please rewrite as follows:

According to the same manner as that in Example 1, solid/liquid separation was performed to remove a crystalline part in which high-melting point glycerides were concentrated, thereby obtaining a liquid part, except that the temperature of the crystalline fraction was raised to 40.5°C. The composition (% by weight) of the high-melting point glycerides and representative G2U and GU2 in the liquid part are shown in Table [[2]] 5.

Example [[4]] 3

Page 30, line 23 to page 31, line 5, please rewrite as follows:

According to the same manner as that in Example 1, solid/liquid separation was performed to remove a crystalline part in which high-melting point glycerides were concentrated, thereby obtaining a liquid part, except that the temperature of the crystalline fraction was raised to 44.5°C. The composition (% by weight) of the high-melting point glycerides and representative G2U and GU2 in the liquid part are shown in Table [[2]] 5.

Page 31, lines 7-15, please rewrite as follows:

According to the same manner as that in Example 1, solid/liquid separation was performed to remove a crystalline part in which high-melting point glycerides were concentrated, thereby obtaining a liquid part, performed to obtain a liquid part, except that the temperature of the crystalline fraction was raised to 39.0°C. The composition (% by weight) of the high-melting point glycerides, and representative G2U and GU2 in the liquid part are shown in Table [[2]] 5.

Page 31, lines 17-24, please rewrite as follows:

According to the same manner as that in Example 1, solid/liquid separation was performed to remove a crystalline part in which high-melting point glycerides were concentrated, thereby obtaining a liquid part, except that the temperature of the crystalline fraction was raised to 46.0°C. The compositions (% by weight) of the high-

melting point glycerides and representative G2U and GU2 in the liquid part are shown in Table [[2]] 5.

Page 32, lines 1-6, please rewrite as follows:

Composition of Liquid Part

	Example 1	Example 2	Example 3	Comparative Example [[1]] 4	Comparative Example [[2]] 5
Heating Temperature	43.0°C	40.5°C	44.5°C	39.0°C	46.0°C
StSt-DG	0.7	0.8	0.9	-	1.4
StStSt	0.6	0.6	0.8	-	1.6
StOSt	69.2	69.5	68.5	-	68.2
StOO	8.5	8.6	8.7	-	8.9

Solid/liquid separation could not be performed in Comparative Example 4 because the raising temperature was too low. Solid/liquid separation could not be performed in Comparative Example 5 either because the sample was completely dissolved due to the high raising temperature.

Page 32, lines 7-8, please rewrite as follows:

In Examples [[2]] 1, [[3]] 2 and [[4]] 3, the high-melting point glycerides were desirably fractionated.

Page 32, lines 10-16, please rewrite as follows:

Chocolates were produced using samples of the products in Examples [[2]] 1 to [[4]] 3 and Comparative Examples 5, and qualities thereof such as melting properties in the mouth were confirmed. The chocolates were produced according to a conventional method.

Formulation of Chocolate	(Parts by Weight)
Cacao mass	15.0
Whole milk powder	20.0
Powdered sugar	45.0
Fat to be tested	20.0
Lecithin	0.4
Vanillin	0.02

* Fat to be tested: crystalline fraction (Examples [[2]] 1 to [[4]] 3, and Comparative Example 5)/fractionated palm oil = 45/55

Page 32, line 17 to page 33, line 5, please rewrite as follows:

Sensory test was performed by five panel persons after storing the molded chocolate at 20°C for 1 week. The results are shown in Table 6.

Table 6

Test product	Sensory Test	
	Chew Feeling	Melting Properties in Mouth
Example 1	◎	◎
Example 2	○	○
Example 3	○	○
Comparative Example [[2]] 5	△	×

Evaluation: ◎-○ good, △ a little poor, × poor

Example [[5]] 4

Page 34, lines 1-9, please rewrite as follows:

Example [[6]] 5

According to the same manner as that in Example 4, solid/liquid separation was performed to remove a crystalline part in which high-melting point glycerides were concentrated, thereby obtaining a liquid part, except that the temperature of PMF was raised to 29.1°C. The composition (% by weight) of POP and PPP contained in the liquid is shown in Table 7.

Example [[7]] 6

Page 35, lines 8-16, please rewrite as follows:

Table 7

	Example 4	Example 5	Example 6	Comparative Example [[3]] 6	Comparative Example [[4]] 7
Heating Temperature	29.0°C	29.1°C	30.0°C	26.5°C	30.7°C
POP	46.4	46.3	46.3	44.2	46.4
PPP	0.57	0.49	0.85	0.58	1.18

In Examples [[5]] 4 to [[7]] 6, the PPP content became 1.0% or less. Therefore, high-melting point glycerides could be fractionated. In Comparative Example [[3]] 6, although the PPP content was reduced to 1.0% or less, the POP fraction was left in the crystalline part and the POP content in the liquid part was decreased because the raising temperature was low. The viscosity of PMF at 26.5°C was so high that sufficient press filtration could not be performed.

Page 36, line 17 (Table 8), please rewrite as follows:

Table 8

	Comparative Example [[5]] 8
StSt-DG	0.8
StStSt	0.9
StOSt	68.5
StOO	8.7

Page 36, line 18 to page 37, line 3, please rewrite as follows:

In Comparative Example 8, the high-melting point glycerides (StSt-DG and StStSt) could be removed to the same extent as in Examples 1 to 3 considering the content thereof. However, since crystals were precipitated with time during solid/liquid separation by centrifugation in the separation work in Comparative Example 5, and the yield of the liquid part was about 30% lower than the yield in Examples [[2]] 1 to [[4]] 3.